

PROPOSAL THAT THE GENUS NAME *TEUTHIS* LINNAEUS (PISCES) BE
SUPPRESSED. Z.N.(S.) 1721

(see volume 25, pages 26–28, volume 26, pages 178–179)

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This proposal arises from other proposals made to the International Commission on Zoological Nomenclature relating to the generic names *Siganus* Forsskål, 1775 by Nielsen and Klauswitz (*Bull. zool. Nomencl.* 25 : 26) and *Teuthis* Linnaeus, 1766, by Taylor (*Bull. zool. Nomencl.* 26 : 178). At the centre of the controversy is Opinion 93, 1926 in which the International Commission on Zoological Nomenclature designated *Teuthis javus* Linnaeus as type-species of *Teuthis* Linnaeus, 1766, but withheld that genus from subsequent Official Lists of Generic Names in Zoology. Taylor (*loc. cit.*) raised three objections to altering Op. 93 which I wish to contend.

2. Firstly as Taylor (*loc. cit.*) has pointed out when the International Commission on Zoological Nomenclature designated *Teuthis javus* Linnaeus as type-species of *Teuthis* Linnaeus they were apparently unaware that Gill (1885, *Proc. U.S. natn. Mus.* 7 : 278) has already designated *Teuthis hepatus* Linnaeus as type-species. However, Taylor has implied that this oversight by the Commission can be dismissed because *Teuthis hepatus* Linnaeus "is complex". He cited Randall (1955, *Pacific Science* 9 : 363) who stated that *Teuthis hepatus* Linnaeus included several acanthurids and a siganid. I have closely examined the references cited by Linnaeus (1766, p. 507) in his *Teuthis hepatus* and find no justification for supposing that they include a siganid. On the other hand Linnaeus (*loc. cit.*) cites two references in his *Teuthis javus*, one to a siganid, the other to an acanthurid. Therefore, in one sense *Teuthis javus* Linnaeus is more complex than *Teuthis hepatus* Linnaeus. However, the complex nature of these two species was fairly adequately resolved long before Opinion 93 was handed down. A brief history of the case follows.

3. Gronovius (1763, *Zoophylaci*) described in detail two specimens, no. 352 (p. 113, pl. 8, fig. 4) a siganid, and no. 353 (p. 113) an acanthurid. Each description was preceded by a number of citations to species of other authors. Linnaeus, 1766 based his *Teuthis hepatus* and *T. javus* on Gronovius' nos. 353 and 352, respectively. He not only selected from the descriptive portion of the text but also from the list of references. These citations conferred on *Teuthis hepatus* Linnaeus, and *Teuthis javus* Linnaeus their composite nature. However, it has been argued that since Linnaeus copied Gronovius the essence of Linnaeus' *Teuthis hepatus* was Gronovius' specimen no. 353, and of his *Teuthis javus* Gronovius' specimen no. 352. Both these specimens still exist (Wheeler, 1958, *Bull. British Museum, Nat. Hist., Historical Series* 1 : 230, 231). Gray (1854, *Catalogue Fish Gronow British Museum* Vol. 2) had access to Gronovius' manuscript and specimens and renamed nos. 353 and 352 as *Acronurus fuscus* Gray and *Teuthis brevirostris* Gray, respectively.

Jordan (who made the submission that led to Op. 93) and Evermann (1898, *Bull. U.S. natn. Mus.* 47 : 1690) made the statement "*Acronurus fuscus*, Gronow, Cat. Fishes, Ed. Gray, 119, 1854) same type as *T. hepatus* L.". Wheeler (*loc. cit.*) considered that in this they had designated Gronovius' specimen no. 353 as type of *Teuthis hepatus* Linnaeus. This specimen's intended status was confirmed by Jordan and Evermann (1917, *Genera of Fishes*, Part 1 : 20), and as mentioned above Gill had already designated *Teuthis hepatus* Linnaeus as type-species of *Teuthis* Linnaeus.

4. If all this were in order it might be said that, Op. 93 aside, *Teuthis hepatus* Linnaeus was the correct name for the species represented by Gronovius' specimen no. 353 and that the genus *Teuthis* Linnaeus belonged with the acanthurids. However, Randall (1956, *Pacific Science* 10 : 225) has pointed out that Cuvier and Valenciennes (1835, *Hist. Nat. Poissons* X : 183, fig. 288) must be accorded "first reviser" status in their restricting *Teuthis hepatus* Linnaeus to that species of Seba (1758, *Naturalium*

Thesauri, vol. 3, pl. 33, fig. 3) listed among the "synonyms" of *Teuthis hepatus* by Linnaeus. I can see no argument against this. However Jordan and Evermann (1917, *Genera of Fishes*, Part 1 : 20) did not accord "first reviser" status to Cuvier and Valenciennes, on the grounds that Cuvier and Valenciennes had mistakenly believed that Seba's fish was the same as Gronovius'. But Cuvier and Valenciennes had not; they said that they were not sure whether Seba's fish was the same as Gronovius' but they did not believe it was truly *Teuthis hepatus* Linnaeus (Cuvier and Valenciennes, *loc. cit.*, p. 184).

As Linnaeus' summary of the characters of his species *Teuthis hepatus* could apply to any one of the "three acanthurids" in his references, and as he is not known to have consulted Gronovius' specimen no. 353 it would have been better if that specimen had not been regarded as the type as was done by Jordan and Evermann (*loc. cit.*) and Wheeler (*loc. cit.*). On the other hand Cuvier and Valenciennes (*loc. cit.*) described and figured *Teuthis hepatus* Linnaeus with the assistance of a specimen known to belong to the same species as Seba's and perhaps the same specimen. If this specimen still exists, although Wheeler suggests it may not, it might be designated the type (neotype) of *Teuthis hepatus* Linnaeus.

5. We may now make the following observations. *Teuthis hepatus* Linnaeus when defined by the Gronovius specimen no. 353 is an Atlantic species of acanthurid, being one of the 35 species in its genus, currently *Acanthurus* Forsskål, 1775 (Randall, 1956, *Pacific Science* 10 : 159-235, and *pers. comm.*). *Teuthis hepatus* Linnaeus as re-described by Cuvier and Valenciennes (*loc. cit.*) is an Indo-West Pacific species of acanthurid. This very easily identified species is the sole representative of its genus, currently *Paracanthurus* Bleeker, 1863 (Randall, 1955, *Pacific Science* 9 : 408). Therefore, Taylor's (*loc. cit.*) objection to "reversing" Op. 93, which I take to mean making *Teuthis hepatus* Linnaeus the type-species of *Teuthis* Linnaeus, is not valid on the grounds that species is "complex". If such a reversal were to eventuate the single species now known as *Paracanthurus hepatus* Linnaeus would become *Teuthis hepatus* Linnaeus. No other nomenclatural changes would seem to be necessary.

6. As with *Teuthis hepatus* Linnaeus, Cuvier and Valenciennes (*loc. cit.*, p. 118) must be credited with "first reviser" status for *Teuthis javus* Linnaeus. They re-described *Teuthis javus* Linnaeus on the basis of the siganid excellently figured by Gronovius (specimen no. 352, *loc. cit.*, pl. 8, fig. 4) and referred to by Linnaeus. This species is very distinctive and easily recognized; I have found no evidence of any confusion about the nature of it in the literature. Nevertheless, Wheeler (*loc. cit.* p. 231) concluded that the Gronovius specimen was "referable to the species that has hitherto been known as *Siganus oramin* Bloch, 1801". Moreover, Taylor (*loc. cit.*) has now designated this specimen as lectotype of *Teuthis javus* Linnaeus. If Wheeler is proved to be correct we now find *Teuthis javus* in the same confusion as *Teuthis hepatus*, i.e. having the species name restricted by Cuvier and Valenciennes to a clearly defined species but with a specimen referable to another species (though the same genus) posing as the type.

However, I have reservations about Wheeler's conclusion on this matter, for he said "There is no doubt that the present skin is the original of the Gronovius description, for the counts given there agree exactly and the illustration is obviously of the same fish". But the fin formula published by Wheeler (*loc. cit.*) does not agree with Gronovius' data. Wheeler gives 10 dorsal rays instead of 8, and 12 pectoral rays instead of 15. However, fin counts are useless for diagnosing siganid species. Wheeler concluded that the species generally "known as *S. javus* (L.) must become *Siganus russellii* (Cuvier and Valenciennes)"; but if the Gronovius illustration is obviously of his specimen I cannot see how that can be. The siganid *Amphacanthus russellii* Cuvier and Valenciennes, 1835 (*Hist. Nat. Poissons* X : 123) was based on a description of Russell (1803, *Fishes Vizagapatam*, Vol. 2, p. 2, pl. 103). Russell's figure is extremely poor and the species unrecognizable. No type specimen is known (Bauchot, 1965, *Bull. Mus. Nat. Hist. Natur.*, (2) 36 : 577). Moreover, Cuvier and Valenciennes (*loc. cit.*, p. 123) equated *Teuthis javus* Linnaeus with Russell's species of pl. 102 (*loc.*

cit.) which again is an excellent illustration of the fish figured by Gronovius (*loc. cit.*, pl. 8, fig. 4).

(If the identity of Gronovius' specimen (i.e. Taylor's lectotype of *Teuthis javus* Linnaeus) is that species figured by him it should have more than 30 scale rows (mean, about 32) between the lateral line and the leading dorsal spines. All other species of siganid have 30 or fewer).

7. I now come to Taylor's (*loc. cit.*) second and third objections to altering Op. 93. He objects to reversing Op. 93 in the interests of nomenclatural stability. This may seem to be true for the acanthurids since the genus *Teuthis* Linnaeus has been used relatively infrequently for species in that family (Taylor, *loc. cit.*). On the other hand for the siganids nomenclatural stability has also been achieved since the handing down of Op. 93, but in defiance of that opinion.

Taylor (*loc. cit.*) produced figures which showed that *Teuthis* has been used more often than *Siganus* Forsskål, 1775, (*Descriptiones Animalium*) for siganids. While this may be true in *toto*—Taylor's figures do not include the last 20 years of publication—after Op. 93 very few used *Teuthis* Linnaeus as a genus name for siganids. Support for this statement is shown by the following.

Since 1926 the genus *Siganus* Forsskål, has been used in place of *Teuthis* Linnaeus in the following works: Fowler, 1928, *Fishes Oceania*, *Mem. Bishop Mus.* 10, and its Supplements 1931, 1934, 1949; Fowler and Bean, 1929, *Fishes Philippines*, *Bull. U.S. natn. Mus.* 100, vol. 8; Schultz, 1943, *Fishes Phoenix Samoa*, *Bull. U.S. natn. Mus.* 180; Smith, 1949, *Sea Fishes Southern Africa*; de Beaufort and Chapman, 1951, *Fishes Indo-Aust. Archipelago*, vol. 9; Woods, 1953, *Fishes Marshall Marianas*, *Bull. U.S. natn. Mus.* 202, vol. 1; Munro, 1955, *Marine Fresh Water Fishes Ceylon*; Scott, 1959, *Sea Fishes Malaya*; Kamohara, 1961, *Col. Illus. Fishes Japan*; Smith and Smith, 1963, *Fishes Seychelles*; Marshall, 1964, *Fishes Great Barrier Reef*; and Munro 1967, *Fishes New Guinea*. On the other hand *Teuthis* has been used for siganids by Schmidt, 1930, *Fishes Riu-Kiu, Pac. Comm. Acad. Sci. USSR, Trans.* 1: 19–156 and Taylor, 1964, *Fishes Arnhem Land, Rec. Amer.-Aust. Exped. Arnhem Land*, vol. 4, pp. 45–307. This list of references includes all the works that might be classed as comprehensive checklists of the fish faunas of major regions within the distributional range of the siganids, and that in addition include keys and/or descriptive material. The only other significant work has been Herre and Montalbán, 1928, *The Philippine siganids*, *Philipp. J. Sci.* 35: 151–185, which also used *Teuthis* despite the title of the paper. There is no doubt that the most influential works appear in the first list; even if taxonomists were not willing to substitute *Teuthis* for *Siganus* the name *Siganus* is likely to appear frequently in non-taxonomic literature for many years to come. Incidentally, the *Zoological Record* has continued to use "Siganidae" as section heading for siganids ever since 1906, vol. 43. This has worked satisfactorily except that Taylor's (1964, *loc. cit.*) species of siganid were listed inadvertently under Acanthuridae. I therefore contend that there has been for the last 46 years a high degree of nomenclatural stability in the siganids but contrary to Op. 93. This being the case I believe Op. 93 should be altered.

8. There are two possibilities, (i) to have *Teuthis hepatus* Linnaeus as the type-species of *Teuthis* Linnaeus, or (ii) to have the genus *Teuthis* Linnaeus suppressed. After consultation with Dr. J. E. Randall, the recent reviser of the acanthurids, I make the proposal which we believe to be in the best interests of all round nomenclatural stability within the two families.

9. I request the International Commission of Zoological Nomenclature to exercise its plenary powers:

- (1) to annul Op. 93 in which *Teuthis javus* Linnaeus was designated type species of *Teuthis* Linnaeus 1766, and in which *Teuthis* Linnaeus was deemed eligible for inclusion in the Official List of Generic Names in Zoology.
- (2) to suppress the genus name *Teuthis* Linnaeus, 1766, for the purposes of the Law of Priority but not for those of the Law of Homonymy;
- (3) to place the genus name *Teuthis* Linnaeus, 1766, (as suppressed under 2 above) on the Official Index of Rejected and Invalid Generic Names in Zoology.

10. If *Teuthis* Linnaeus becomes an unavailable genus name for siganids, *Siganus* Forsskal, 1775 becomes the next available genus name. There is no doubt as Taylor (*Bull. zool. Nomencl.* 26 : 178) has pointed out that *Siganus* Forsskal was intended as a genus name and it has been so used by most authors. The inadequacies in Nielsen and Klausewitz's (*loc. cit.*) submission have been brought to the Commission's notice by Taylor (*loc. cit.*). As I believe the Commission is now in possession of all the facts relating to Nielsen and Klausewitz's proposals, at least where they concern *Siganus*, I support sections 9 (1) a, b; 9 (2) a; 9 (3) a; and 9 (4) of their proposal provided the genus name *Teuthis* Linnaeus is suppressed, or if *Teuthis hepatus* Linnaeus were to become the type-species of *Teuthis* Linnaeus.

THE PROPOSED DESIGNATION OF A TYPE SPECIES FOR *CALLOPANCHAX*
MYERS, 1933. COMMENT ON THE 'REMARKS' OF DR. THYS van den
AUDENAERDE. Z.N.(S.) 1910
(See volume 28, page 139)

By E. Trewavas and P. H. Greenwood (*British Museum (Natural History), London*)

In para. 6 of his 'remarks' Thys contradicts Myers' "dissent from the implied conclusion that (he, Myers) based two new generic names on the same species". We support Prof. Myers with the following explanation:

It is true that *Fundulus caeruleus* Boulenger and *Fundulus sjoestedti* Lönnberg are synonyms and that Myers stated that these were respectively the type species of *Fundulopanchax* and *Callopanchax*. But the contrasting definitions of these as subgenera were given by Myers (1933 : 184) when he proposed *Callopanchax* as new and the diagnostic characters of *Callopanchax* are clearly those of *Fundulus sjoestedti* of Boulenger, nec Lönnberg (high number of fin-rays, wide band of teeth). The nature of a species does not depend on the label attached to it when there is evidence that the label is a false one, and the facts have nothing to do with the excusability or otherwise of the mistake in labelling.

If Thys's para. 6 is wrong so is the second part of his para. 7.

The matter seems to us to fall under Art. 70(a) and we think Prof. Myers has correctly put the evidence to the Commission in asking for its decision, a decision that, in whichever sense, we are sure Prof. Myers would accept without emotion, as we would. It still seems to us that it is open to the Commission to fix *F. sjoestedti* Lönnberg as the type of *Callopanchax*, but only by the use of its plenary powers and not because that was the species before Myers when he proposed the subgeneric name.

COMMENT ON THE REQUESTED CONFIRMATION OF DESIGNATION
OF TYPE-SPECIES FOR *DONACILLA* DE BLAINVILLE, 1819 AND
AMPHIDESMA LAMARCK, 1818 (BIVALVIA). Z.N.(S.) 1959
(see volume 28, pages 121-123)

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I wish to support Beu's opinion (1971 : 121) to consider the name *Amphidesma* Lamarck a synonym of *Semele* Schumacher. In my opinion, however, the type designation by Children (1823 : 301, pl. 5 fig. 37) is self-explanatory and therefore in full agreement with the International Code of Zoological Nomenclature, and needs no confirmation by the Commission.

I object to Beu's proposal to place *Donacilla* De Blainville, 1819, on the Official List of Generic Names in Zoology. De Blainville's note on *Donacilla* (1819 : 428) may be interpreted in two ways.